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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,863	09/30/2003	Xiaodong R. Fu	SP03-127	7634

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CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

EXAMINER	
BALDWIN, GORDON	

ART UNIT	PAPER NUMBER
1794	

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01/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,863	FU ET AL.	
	Examiner	Art Unit	
	Gordon R. Baldwin	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-9 and 31-36* is/are pending in the application.

4a) Of the above claim(s) *11-30* is/are withdrawn from consideration.

5)☒ Claim(s) *3 and 32-35* is/are allowed.

6)☒ Claim(s) *1,2,4,6-9,31 and 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20071017*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4, 8, 9, 31 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Cutler (Pat. Appl. No. 2004/0152593)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Consider claims 1-4, 8, 31 and 36, Cutler teaches a porous ceramic honeycomb structure that can be made of cordierite that can have a cell wall thickness of between 0.10 mm to 0.50 mm and a porosity greater than 45% to greater than 55% and a pore size greater than 5 micrometers up to 30 micrometers with a coefficient of

thermal expansion (CTE) or less than $15X10^{-7}/°$ C to also being less than $7X10^{-7}/°$ C. (Para. 10-12)

As for the modulus of rupture strength, this aspect is considered to taught by the Cutler reference because it has been held that where the claimed and prior art products are identical or substantially identical in structure or are produced by identical or a substantially identical processes, a prima facie case of either anticipation or obviousness will be considered to have been established over functional limitations that stem from the claimed structure. *In re Best*, 195 USPQ 430, 433 (CCPA 1977), *In re Spada,* 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The ***prima facie*** case can be rebutted by evidence showing that the prior art products do not necessarily posses the characteristics of the claimed products. *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1,2,4,6, 8-10, 31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeAngelis (Pat. No. 4,888,317).

Consider claims 1,2, 4, 6, 8-10, 31 and 36, DeAngelis discloses a ceramic honeycomb structure with 5.9 mils wall thickness (Col. 6 lines 5-10) and porosities of up to 60%-80% (Col. 3 lines 65-70 and Col. 4 lines 1-20). DeAngelis also discloses the honeycomb comprising the same materials (Col. 4 lines 20-45), as that used in the present application (see embodiment [0017] on page 4 of the specification).

As for the median pore size, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the size of the pores in the range of 2-10 micrometers for the intended application, since it has been held that discovering an optimum value of a result effective variable only involves routine skill in the art. In re Boesch, 617 F. 2d 272, 205 USPQ 215

Additionally, while the pore size mentioned in the DeAngelis (1-20 microns, Col. 7 lines 5-20) involved the structural body being made out of metal, it is still considered to teach that a desirable median pore size is 1-20 microns.

DeAngelis also teaches a ceramic honeycomb structure (Col. 3 lines 60-70 and Col. 4 lines 1-20) and since it has the same structure as the claimed invention and is

made by the same material as recited in the specification, the same honeycomb would also have the same physical properties, such as the CTE and the MOR as claimed.

Response to Arguments

Applicant's arguments filed 10/17/2007 have been fully considered but they are not persuasive.

Regarding the applicant's argument concerning the 102(a) rejection with Cutler, the applicant is correct and the rejection has been changed to a 102(e). Regarding the argument against the art for the Cutler reference, since the ranges of the Cutler reference do overlap the ranges of the applicant with sufficient specificity and is therefore considered to teach the claimed invention because the prior art which teaches a range within, overlapping, or touching the claimed range anticipates if the prior art range discloses the claimed range with sufficient specificity. See MPEP 2131.03 and *Ex parte Lee*, 31 USPQ2d 1105 (Bd. Pat. App. & Inter. 1993). Cutler teaches half the range claimed for the wall thickness and 33% of the porosity claimed and more than 50% of the range claimed for the median pore size in addition to much of the CTE claimed. Therefore, Cutler is consider to teach the claimed invention.

Regarding the applicant's argument that all of Cutlers examples in paragraph 26 were prepared having cell wall thicknesses of 12 mils is not persuasive because this is merely an process to achieve a final product disclosed in paragraph 10 with wall thickness between 0.004 in-0.020 in . The final product of Cutler discloses the claimed

invention of the applicant and therefore reads upon the claimed invention of the applicant.

Applicant argument regarding the 103(a) rejection with Cutler of claims 6 and 33 is correct and is hereby traversed.

The applicant's argument against the combination of Beall and Kondo in the 103(a) rejection of claim 1-4, 6, 8, 9 and 31-36 is persuasive and the rejection is hereby traversed.

Regarding the applicant's argument against the 103(a) rejection with DeAngelis, while DeAngelis may not specifically state that the median pore size is what the applicant has claimed, but the pores range from 1-20 microns from the smallest to the largest. If you were to use the applicant's definition of median pores size, then the median pore size of the range claimed by the DeAngelis reference would be roughly 10 microns, which is within the claimed range of the applicant's invention. Therefore, the rejection of DeAngelis is considered to read upon the claim invention.

Regarding the rejection of claims 32, 34-35 with DeAngelis, the Applicant is correct and these claims do depend from claim 3 which is currently indicated as being allowable. Therefore, the rejection using DeAngelis against claims 32, 34-35 is traversed.

Allowable Subject Matter

Claims 3 and 32-35 are allowed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon R. Baldwin whose telephone number is (571)272-5166. The examiner can normally be reached on M-F 7:45-5:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GRB

Jennifer Michener
Primary Examiner
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